

B5

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number  
**WO 2005/096697 A2**

(51) International Patent Classification: Not classified

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/IB2005/002379

(22) International Filing Date: 11 February 2005 (11.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(30) Priority Data:

60/543,974 12 February 2004 (12.02.2004) US

(71) Applicant (for all designated States except US): SANSU, LTD. [GB/GB]; 11 Edith Terrace, Studio 4, London SW10 0TH (GB).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventor; and

(75) Inventor/Applicant (for US only): RATCLIFFE, Suzy [GB/GB]; 11 Edith Terrace, Studio 4, London SW10 0TH (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,



**WO 2005/096697 A2**

(54) Title: GARMENT LENGTH ADJUSTMENT MECHANISM

(57) Abstract: An adjustable garment includes at least one lengthwise portion, the lengthwise portion including a first inside seam and a second inside seam, at least one attaching mechanism fastened to each of the first inside seam and the second inside seam, and at least one receiving portion positioned along a length of each of the first inside seam and the second inside seam for receiving the at least one attaching mechanism when the lengthwise portion is turned inwards.

## GARMENT LENGTH ADJUSTMENT MECHANISM

### FIELD OF THE INVENTION

This invention relates to the adjustment of the length of particular garments, particularly the adjustment of the length of men's, women's and children's trousers.

- 5 Specifically, the invention provides for attaching a mechanism to an inside seam and an outside seam of a trouser leg for adjustment of the trouser leg to a shorter or longer length position.

### BACKGROUND OF THE INVENTION

It is often necessary to tailor or alter clothing so that it properly fits the wearer. In 10 particular, pant legs are often too short or too long for the wearer or jacket sleeves are likewise an uncomfortable length, and therefore must be adjusted to the appropriate length. This often requires that the wearer see a tailor who will measure the height and length, and sew the hem of the pants or the arms of the jacket accordingly. The wearer of the garment may have to wait for the tailoring to be complete before enjoying the garment. The wearer 15 also may be unable to adjust the hem to any other preferable or necessary height or length once the tailoring is complete. Additionally, it is often desirable to adjust the length of pant legs to correspond to particular shoes or styles. For example, when wearing boots or heeled shoes, the pant leg may require adjustment as opposed to when the wearer has flat shoes on.

### SUMMARY OF THE INVENTION

- 20 The garment adjustment mechanism of the present invention allows lengthwise adjustment of garments, such as pants, shirts, or jackets, so that the wearer can freely adjust a garment to his or her liking or need. The invention thus provides a useful and advantageous garment that provides adjustment of a garment to the appropriate fit, while preserving the integrity of the garment's outer appearance.
- 25 Embodiments of the invention include an adjustable garment. The adjustable garment includes at least one lengthwise portion, the lengthwise portion including a first inside seam and a second inside seam, at least one attaching mechanism fastened to each of the first inside seam and the second inside seam, and at least one receiving portion positioned along a length of each of the first inside seam and the second inside seam for receiving the at least 30 one attaching mechanism when the lengthwise portion is turned inwards.

Implementations of the invention can include one or more of the following features. The garment can be a pair of trousers and the at least one lengthwise portion can be a leg of the pair of trousers. The at least one attaching mechanism can be a fabric loop and the at least one receiving portion can be a button that receives the fabric loop. The at least one attaching mechanism can include one of a cufflink, a t-bar, a chain link, a button, a tie or a press stud. The at least one receiving portion can include a slit through which the at least one attaching mechanism is inserted.

The invention will be more fully understood after a review of the following figures, detailed description and claims.

10

#### BRIEF DESCRIPTION OF THE DRAWINGS

These and other features of the invention will become more apparent from the following description in which reference is made to the appended drawings briefly described below.

15 FIG. 1 illustrates an adjusting mechanism in accordance with one embodiment of the invention; and

FIG. 2 illustrates an adjusting mechanism in accordance with one embodiment of the invention.

20

#### DETAILED DESCRIPTION OF THE INVENTION

The features and other details of the invention will now be more particularly described with reference to the accompanying drawings and the claims. It will be understood that particular embodiments described herein are shown by way of illustration and not as limitations of the invention. The principal features of this invention can be employed in various embodiments without departing from the scope of the invention.

Embodiments of the invention are related to garments that may need to be altered, particularly lengthwise, in order to properly fit the wearer. The garments may be men's clothing, women's clothing, or children's clothing. Particularly, the invention relates to a mechanism for adjusting the length of pant legs without the necessity of a seamstress or tailor 30 to remove and alter a stitched hem. Embodiments of the invention are presented with particular applicability to pant legs, but embodiments can be used for other garments, such as

shirt sleeves, jacket sleeves, or other garments having lengthwise portions. Embodiments of the invention are implemented in jeans, or denim pants, although the invention can be implemented in pants made of other fabrics. Embodiments of the invention can be used for other garments, where adjustable length or size may be desirable.

5 With reference to FIG. 1, a pair of trousers are shown. The magnified view in FIG. 1 represents the bottom portion of the inside of one of the trouser, or pant legs, the bottom portion being the area of the pant having particular relevance. In other words, the magnified view is an inside-out view of the pant leg. The inner portion of the pant leg 12 includes a left side seam 14, a right side seam 16, and a bottom hem 18. A loop 20 is attached at the left  
10 side seam 14 at the level of the hem and a loop 20 is attached at the right side seam 16 at the level of the bottom hem 18. The loop 20 is sewn into the bottom hem 18 where the bottom hem 18 meets the respective side seam.

In addition to the loops 20, buttons 22 or other fastening fixtures are attached to the inside seams of the pant leg 12. Buttons 22 are positioned along the length of each of the  
15 side seams at intervals along the length of the side seams. A button 22 at a first position on the left side seam 14 corresponds to a button 22 at a first position on the right side seam 16. In this way, an equal number of buttons 22 are attached to each of the left and the right side seams at corresponding height positions.

With continued reference to FIG. 1, the adjustability of the length of the trousers is as  
20 follows. It is frequently the case that the length of trousers is too long or too short for the prospective wearer of the trousers. For ease of adjustment of the length to a length that is suitable, trousers having the adjustment feature of the invention can be altered in length by moving the loop 20 to a level at which the pant leg is the appropriate length. The loop 20 connects to a button 22 on the same side of the pant leg as the respective loop is sewn when  
25 the trouser leg is turned inward. Therefore, the left side loop 20 connects to a left side button 22, and the right side loop 20 connects to a right side button 22. When the pants are right-side out, as they would be when a wearer puts them on, the fabric of the trousers is turned inward so that the loop 20 can engage with one of the plurality of buttons if it is desirable to shorten the pant leg. When the fabric of the pant leg is turned inward and the length altered  
30 by the attachment of the loop, the attaching portions are not visible to an outside observer. A clean bottom line of the pant leg is visible.

In an alternative but equally sufficient embodiment, a pant leg 30 may be adjusted using a buttonhole arrangement, rather than using a loop that attaches to the buttons, as in FIG. 1. Referring to FIG. 2, the pant leg 30 is shown so that the inside surface of the pant leg is visible, i.e., the pant leg is inside-out so that the stitching of the pant leg is shown in the magnified view. The pant leg 30 includes a left side seam 32, a right side seam 34, a bottom hem 36, a button 38, and a plurality of slits 40. The button 38 can be a cufflink, a smaller version of a cufflink, a hook and loop, or some other attaching mechanism that can be inserted into slits or buttonholes to complete attachment. The slits 40 are arranged in the left and right side seams 32, 34, respectively, at corresponding heights such that a slit in the right side corresponds to a slit in the left side seam. The slits 40 are not visible on the outside surface of the pant legs and are instead sewn into the inside seams in such a way that they do not extend through the thickness of the pant fabric, i.e., a lined pair of trousers. Any of a number of corresponding slits 40 can be available on the inside left and right seams. The slits 40 extend along the length of the left and right seams. The slits can be any of a number of possible lengths, such as  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", 1", and so forth. Any of a number of slits can be positioned along the inside seams of the pant legs.

In the alternative, the slits 40 may extend through the thickness of the fabric, and the button or cufflink 38 may be attached to the outside bottom hem of the pant leg 30. In this embodiment, the pant leg 30 is turned inward and the cufflinks 38 are inserted at corresponding slits 40, and the cufflinks pop through the slit 40 so that a portion of the cufflink is visible to the outside observer of the trousers. The cufflink is a decorative bottom accessory to the pant leg, while functioning as the mechanism by which the pant leg is properly adjusted in height.

Similar to the embodiment in FIG. 1, with continued reference to FIG. 2, the adjustability of the length of the trousers includes turning the fabric of the trouser leg inward. For adjustment of the length to a length that is suitable, trousers having the adjustment feature of the invention can be altered in length by moving the button 38 to a level at which the pant leg is the appropriate length for the wearer. The left side button is inserted into a left side slit, while the right side button is inserted into a right side slit at a corresponding height to the left side button. When the buttons 38 are engaged with the slits 40, the pant leg has an external bottom edge that is straight. The buttons 38 may appear as an accessory, as mentioned, or the buttons may be concealed from the outside edge of the trousers.

Embodiments of the invention are directed to the adjustment of length of the pant legs of a pair of trousers. As is apparent to those skilled in the art, the adjustment features presented in both figures 1 and 2 can be incorporated into the sleeves of a jacket or shirt such that turning the sleeve inward allows engagement of a button with a loop or a slit to shorten  
5 the length of the sleeves. Also, as apparent to those skilled in the art, any of a number of slits or buttons can be inserted along the length of the pant leg, which may be dictated by the size and overall length of the pants, the fabric of the pants, and the necessity of altering the length of the pants. Further, it is clear that embodiments of the invention can be useful for the reuse  
10 of clothing, such as children's clothing, or for adjusting the length for a growing child's needs.

Embodiments of the invention describe trousers having a bottom hem which is adjusted to a different length. It is to be understood that the pant legs may have unfinished bottom edges that can be adjusted to the appropriate length and create a finished bottom edge by way of folding the pant leg inward.

15 Embodiments of the invention can use attachment mechanisms in addition to buttons, loops and cufflinks, such as a t-bar cufflink, a chain cufflink, press studs as used on tuxedo shirts, and any other known means of attachment, such as conventional cufflinks that are altered in size (i.e., smaller versions of conventional cufflinks).

Thus, it is shown that the length of a garment, particularly a pair of pants can be  
20 adjusted easily and efficiently, without the requirement of the removal of stitches already in place or the addition of stitches to hold a new hem in a new length position. Further, the outer appearance of a garment having the adjustment features described herein is not compromised. A clean bottom edge results from a simple step of turning the bottom edge inward and connecting the attaching mechanisms.

25 From the foregoing detailed description it has been shown how the objects of the invention have been obtained in a preferred manner. However, modifications and equivalence of the disclosed concepts such as those which would occur to one of ordinary skill in the art are intended to be included within the scope of the present invention. Such equivalents are considered to be within the scope of the present invention and are covered by  
30 the following claims.

Various substitutions, alterations, and modifications may be made to the invention without departing from the spirit and scope of the invention as defined by the claims. Other aspects, advantages, and modifications are within the scope of the invention. The contents of all references, issued patents, and published patent applications cited throughout this application are hereby incorporated by reference. The appropriate components, processes, and methods of those patents, applications and other documents may be selected for the present invention and embodiments thereof.

*What is claimed is:*

10

## CLAIMS

1. A pant leg adjustment mechanism comprising:
  - at least one lengthwise portion, the lengthwise portion including a first inside seam
  - 5 and a second inside seam;
  - at least one attaching mechanism fastened to each of the first inside seam and the second inside seam; and
  - 10 at least one receiving portion positioned along a length of each of the first inside seam and the second inside seam for receiving the at least one attaching mechanism when the lengthwise portion is turned inwards.
2. The adjustable garment of claim 1 wherein the garment is a pair of trousers and the at least one lengthwise portion is a leg of the pair of trousers.
- 15 3. The adjustable garment of claim 1 wherein the at least one attaching mechanism is a fabric loop.
4. The adjustable garment of claim 3 wherein the at least one receiving portion is a button that receives the fabric loop.
- 20 5. The adjustable garment of claim 1 wherein the at least one attaching mechanism includes one of a cufflink, a button, or a tie.
6. The adjustable garment of claim 5 wherein the at least one receiving portion includes  
25 a slit through which the at least one attaching mechanism is inserted.

7. The adjustable garment of claim 1 wherein the at least one attaching mechanism includes a hook and the at least one receiving portion includes at least one loop to which the hook is connected.

5 8. A pant leg adjustment mechanism comprising:

a plurality of buttons positioned along a length of a first inside edge of the pant leg;

a plurality of buttons positioned along a length of a second inside edge of the pant leg, wherein the plurality of buttons positioned along the length of the second inside edge correspond in height to the plurality of buttons positioned along the length of the first inside edge;

10 edge;

a first loop attached to a bottom portion of the first inside edge of the pant leg and a second loop attached to a bottom portion of the second inside edge of the pant leg,

15

wherein the first loop is received by one of the plurality of buttons on the first inside edge of the pant leg and the second loop is received by the button on the second inside edge of the pant leg that corresponds to the one of the plurality of buttons on the first inside edge.

9. A pant lég adjustment mechanism comprising:

a plurality of slits positioned along a length of a first inside edge of the pant leg;

20

a plurality of slits positioned along a length of a second inside edge of the pant leg, wherein the plurality of slits positioned along the length of the second inside edge correspond in height to the plurality of slits positioned along the length of the first inside edge;

25

a first attaching mechanism attached to a bottom portion of the first inside edge of the pant leg and a second attaching mechanism attached to a bottom portion of the second inside edge of the pant leg,

wherein the first attaching mechanism is received by one of the plurality of slits on the first inside edge of the pant leg and the second attaching mechanism is received by the slit on the second inside edge of the pant leg that corresponds to the one of the plurality of slits on the first inside edge that receives the first button.

10. The pant leg adjustment mechanism of claim 9 wherein the attaching mechanism includes at least one of a button, a cufflink, a t-bar and a hook.

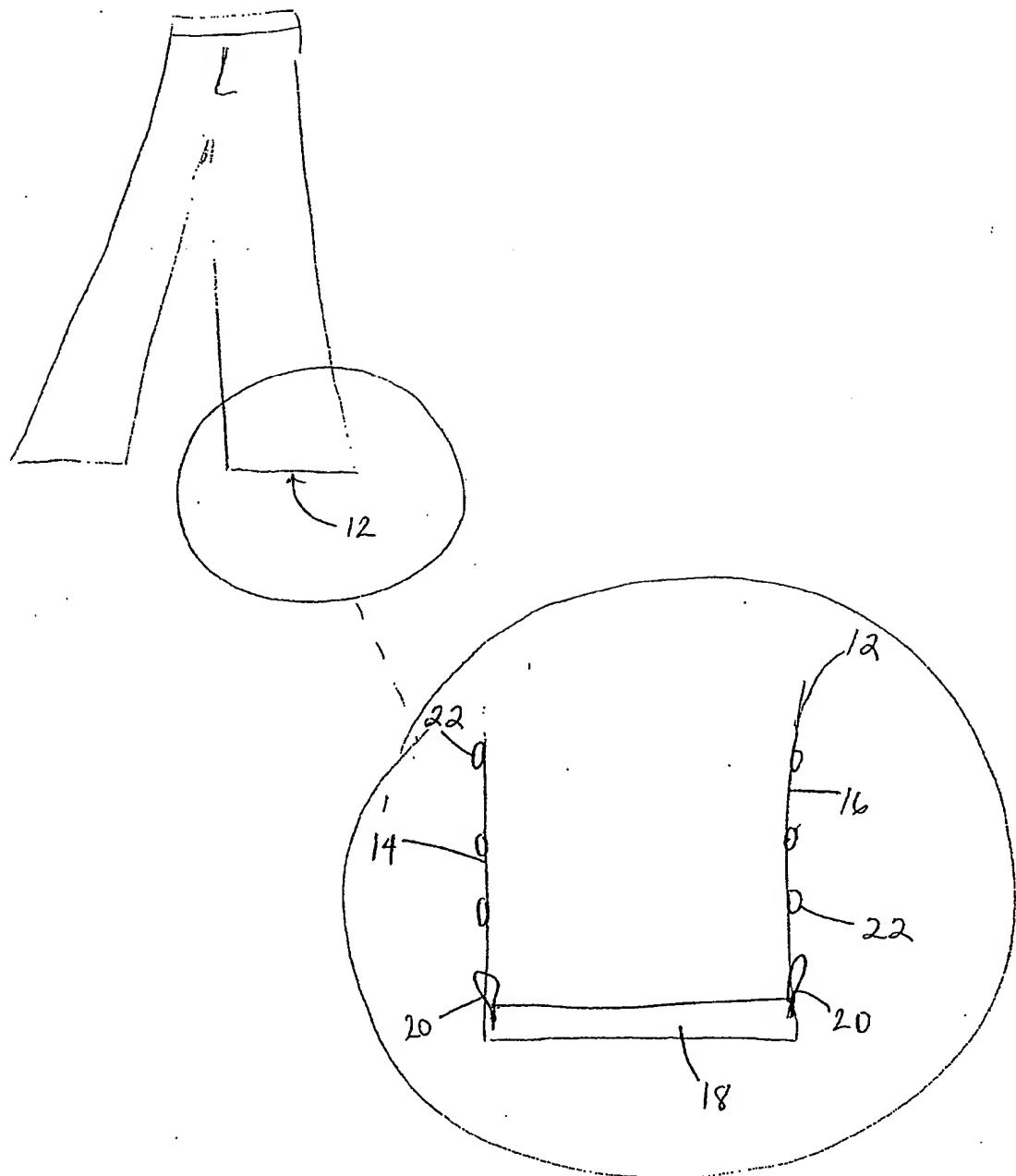


Figure 1

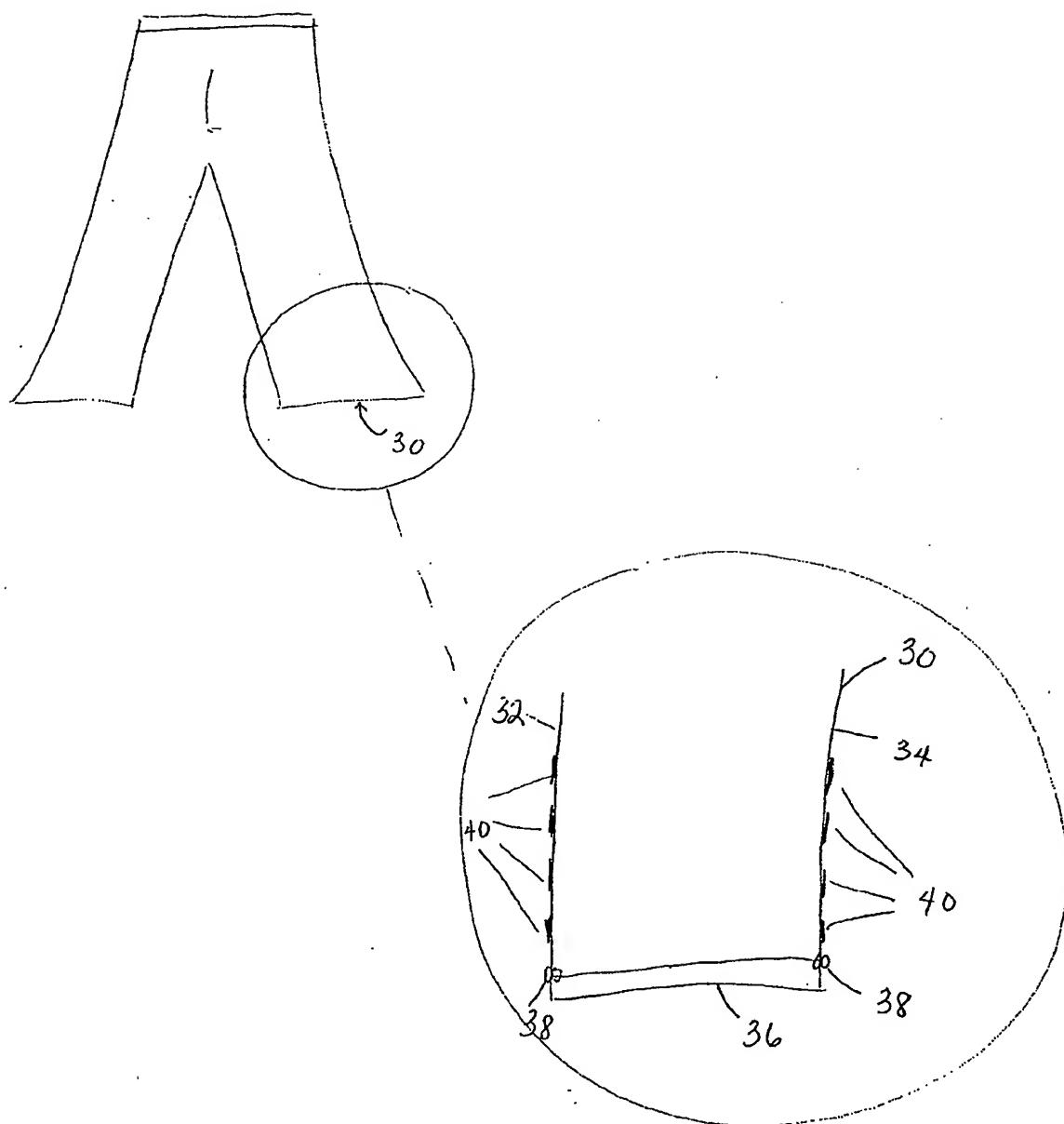


Figure 2

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number  
**WO 2005/096697 A3**

(51) International Patent Classification<sup>7</sup>: **A41D 15/00**

(21) International Application Number:  
**PCT/IB2005/002379**

(22) International Filing Date:  
11 February 2005 (11.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/543,974 12 February 2004 (12.02.2004) US

(71) Applicant (for all designated States except US): SANSU, LTD. [GB/GB]; 11 Edith Terrace, Studio 4, London SW10 0TH (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): RATCLIFFE, Suzy [GB/GB]; 11 Edith Terrace, Studio 4, London SW10 0TH (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TI, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

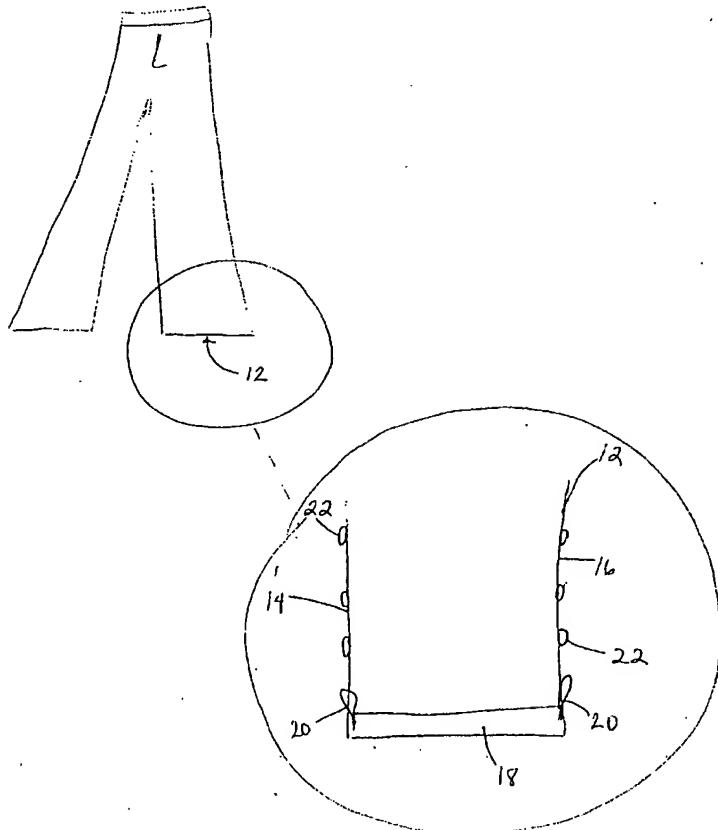
Published:

— with international search report

(88) Date of publication of the international search report:  
23 March 2006

[Continued on next page]

(54) Title: GARMENT LENGTH ADJUSTMENT MECHANISM



(57) Abstract: An adjustable garment includes at least one lengthwise portion, the lengthwise portion including a first inside seam (14) and a second inside seam, at least one attaching mechanism (20) fastened to each of the first inside seam and the second inside seam, and at least one receiving portion (22) positioned along a length of each of the first inside seam and the second inside seam for receiving the at least one attaching mechanism when the lengthwise portion is turned inwards.

WO 2005/096697 A3



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

PCT/IB2005/002379

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A41D15/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A41D A41F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 756 710 A (BILLETT CLAUDE) 12 June 1998 (1998-06-12) page 1, line 10 - line 14 page 2, line 20 page 3, line 19 - line 28 page 4, line 32 - line 35	1,2
Y	FR 1 198 935 A (FORTELLA LIMITED) 10 December 1959 (1959-12-10) page 1, column 1, paragraph 1 page 1, column 1, paragraph 3 - paragraph 4 page 1, column 2, paragraph 7 page 2, column 1, paragraph 2 page 2, column 1, paragraph 4 page 2, column 2, paragraph 2 - paragraph 3	3-10
Y		3-10
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

\*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the International search

1 November 2005

Date of mailing of the international search report

14/11/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Monné, E

## INTERNATIONAL SEARCH REPORT

PCT/IB2005/002379

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	JP 2005 226168 A (ACHILLES CORP KK) 25 August 2005 (2005-08-25) figure 3b -----	1-4
X	GB 2 264 430 A (* MILETA SPORTS LIMITED) 1 September 1993 (1993-09-01) page 2, paragraph 5 page 3, paragraphs 1,2,4 -----	1,2

## INTERNATIONAL SEARCH REPORT

PCT/IB2005/002379

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2756710	A 12-06-1998	NONE	
FR 1198935	A 10-12-1959	NONE	
JP 2005226168	A 25-08-2005	NONE	
GB 2264430	A 01-09-1993	NONE	